

# JVC

## SERVICE MANUAL

MODEL  
**A-X2**

STEREO INTEGRATED AMPLIFIER  
Super-A



No. 257  
MAR. | 980

# Contents

|  |    |
|--|----|
| <b>1. Specifications</b>   | 1  |
| <b>2. Proper Connections of Power LED Indicators</b>                               | 1  |
| <b>3. Main Parts Locations</b>   |    |
| 3-(1) Top View   | 2  |
| 3-(2) Front View   | 2  |
| 3-(3) Rear View  | 2  |
| <b>4. Exploded View</b>  | 3  |
| <b>5. Block Diagram</b>  | 4  |
| <b>6. New Technology of IC in Super A Circuit</b>                                  | 4  |
| <b>7. Power Amplifier Idling Current Adjustment Procedure</b>                      | 5  |
| <b>8. Printed Circuit Board Ass'y and Parts List</b>                               |    |
| 8-(1) TXX-241A Power Amp., Volume Control & Other Functions Split P.C. Board Ass'y | 5  |
| 8-(2) TXX-240 Tone Controls & Other Select Switches Split P.C. Board Ass'y         | 8  |
| <b>8-(3) TPS-255B AC Fuse P.C. Board Ass'y</b>                                     | 9  |
| <b>8-(4) TPS-277 AC Fuse P.C. Board Ass'y</b>                                      | 9  |
| <b>8-(5) TPS-234A AC Voltage Selector P.C. Board Ass'y</b>                         | 9  |
| <b>8-(6) TX-229B SEA (Sound Effect Amplifier) P.C. Board Ass'y</b>                 | 10 |
| <b>9. A-X2 Schematic Diagram</b>   | 12 |
| <b>10. Accessories List</b>  | 14 |
| <b>11. Packing Materials and Part Numbers</b>                                      | 14 |
| <b>12. Parts List with Specified Numbers for Designated Areas</b>                  | 14 |

**Warning:**

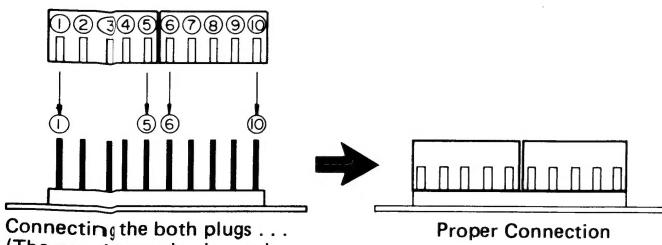
When placing the parts marked with  , be sure to use the designated parts to ensure safety.

## 1. Specifications

|  |  |
|--|--|
| Output Power<br>(Both Channels driven) | : 40 watts per channel, min.<br>RMS into 8 Ω from 20 Hz to<br>20 kHz with no more than<br>0.007 % T.H.D.<br>42 watts per channel into 8 Ω<br>at 1 kHz. |
| Total Harmonic Distortion              | : 0.007 % at Rated output, from<br>20 Hz to 20 kHz, 8 Ω<br>0.003 % at Rated output at<br>1 kHz, 8 Ω  |
| Intermodulation<br>Distortion          | : 0.007 % at Rated output, 8 Ω   |
| Power Band Width                       | : 10 Hz – 30 kHz (IHF, both<br>channels driven, 8 Ω, 0.02 %<br>THD)  |
| Frequency Response                     | : 10 Hz – 100 kHz <sup>+0</sup> <sub>-3 dB</sub>   |
| Dumping Factor                         | : 50 (1 kHz, 8 Ω)  |
| Tone Controls (S.E.A.)                 |  |

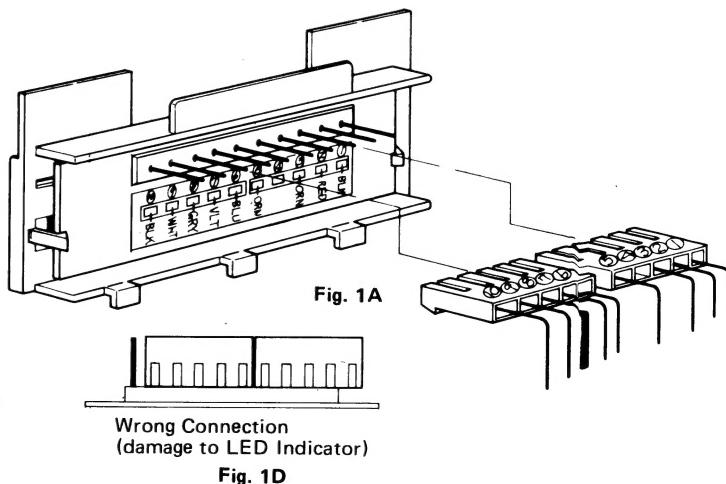
|  |  |
|--|--|
| Center Frequency                       | : 40, 250, 1 k, 5 k, 15 kHz  |
| Control Range                          | : ±12 dB   |
| Input Sensitivity/<br>Impedance        |  |
| Phono                                  | : 2.5 mV/47 kΩ   |
| TUNER, AUX, TAPE                       | : 150 mV/40 kΩ   |
| Rec. Output Level                      | : 150 mV   |
| Phono Equalizer Deviation              | : ±0.5 dB (20 Hz – 15 kHz)   |
| Phono Overload                         | : 150 mV (1 kHz)   |
| Signal to Noise Ratio                  |  |
| Phono                                  | : 73 dB (new IHF)  |
| TUNER, AUX, TAPE                       | : 77 dB (new IHF)  |
| Loudness Control                       | : +6 dB at 100 Hz  |
| (Volume Control at<br>–30 dB position) | : +4 dB at 10 kHz  |
| Dimensions                             | : 4-11/16"(H) x 16-1/2"(W) x<br>12-5/16"(W)<br>(12 cm x 42 cm x 32.9 cm) |
| Weight (Net)                           | : 14.6 lbs (6.6 kg)  |
| Power Specifications                   | : See page 14  |

## 2. Proper Connections of Power LED Indicators



Connecting the both plugs . . .  
(The numbers and color code-  
ward of wires are indicated on  
a surface of socket, see Fig. 1A.)

Fig. 1B



Proper Connection  
Fig. 1C

Fig. 1A

Wrong Connection  
(damage to LED Indicator)

Fig. 1D

### 3. Main Parts Locations

#### 3-(1) Top View

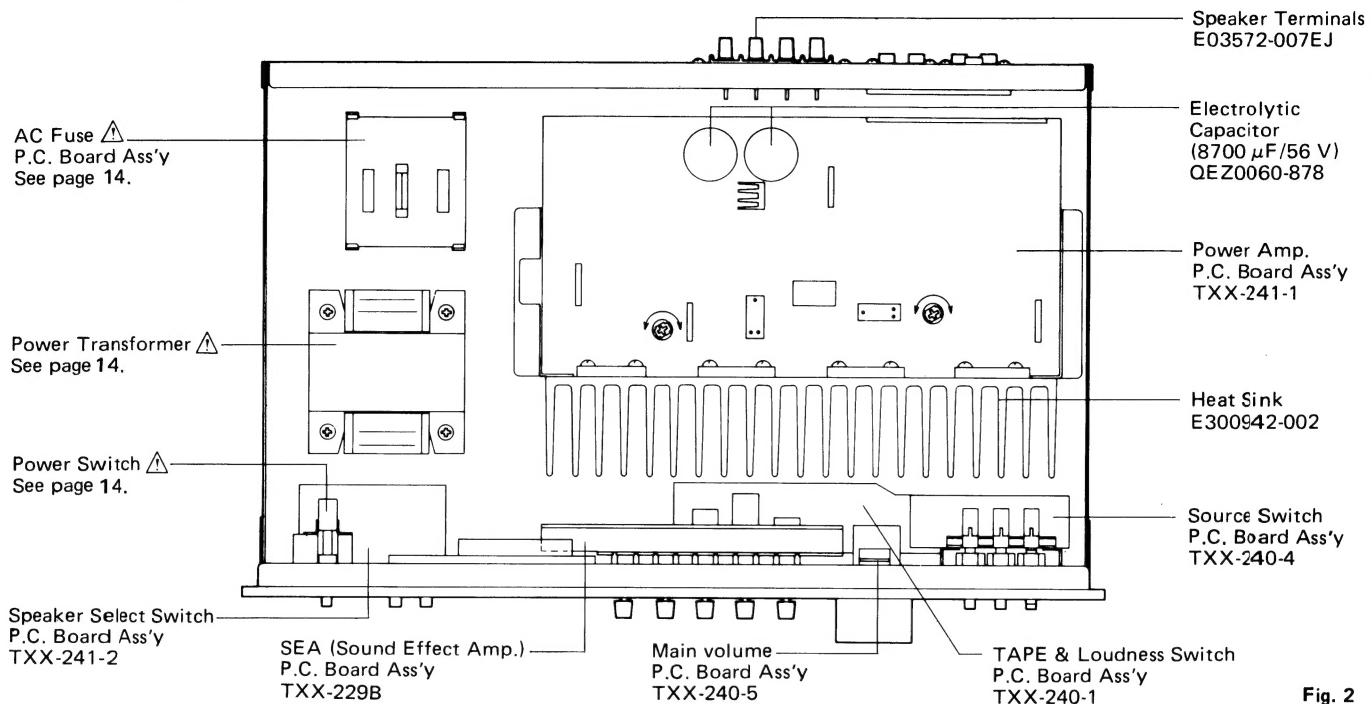


Fig. 2

#### 3-(2) Front View

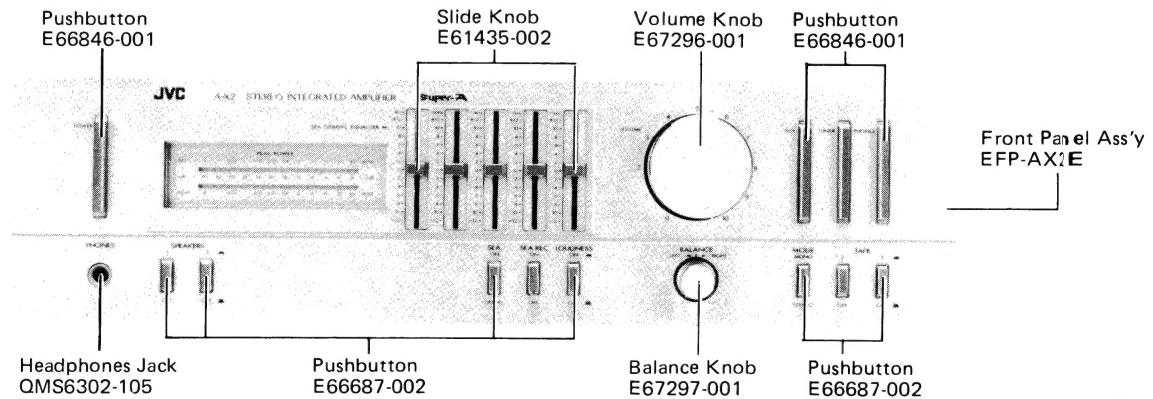


Fig. 3

#### 3-(3) Rear View

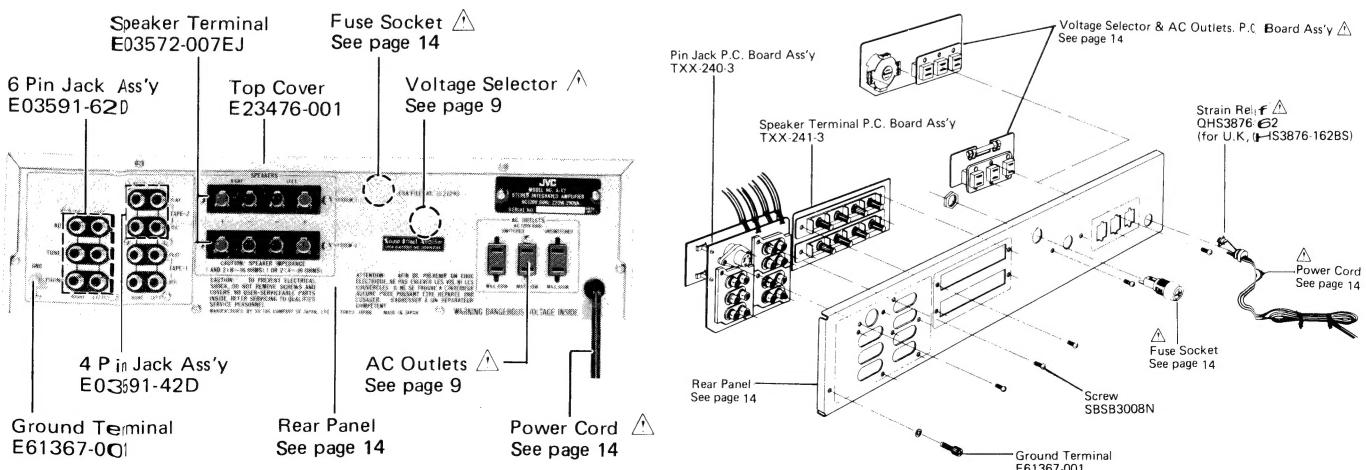
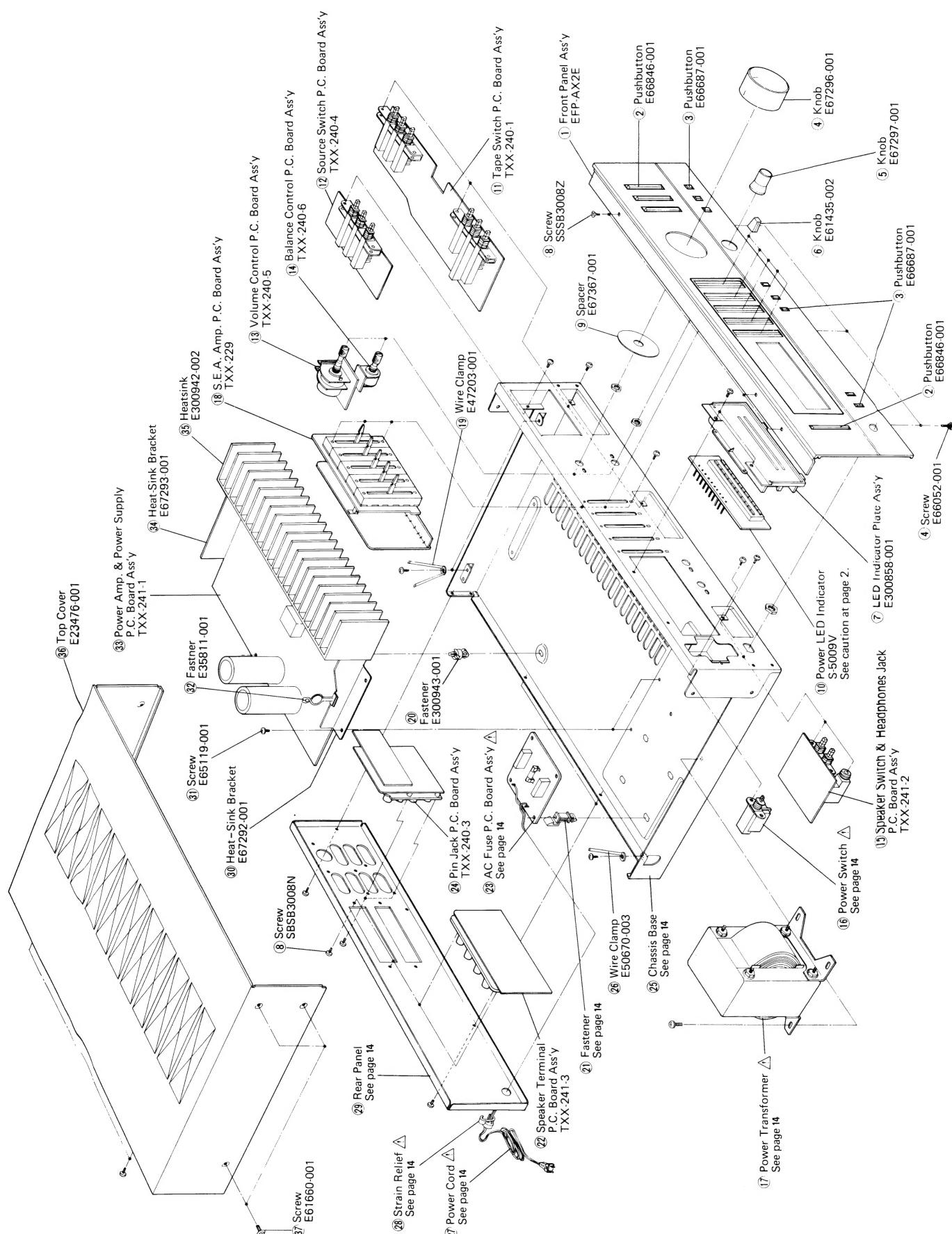


Fig. 4

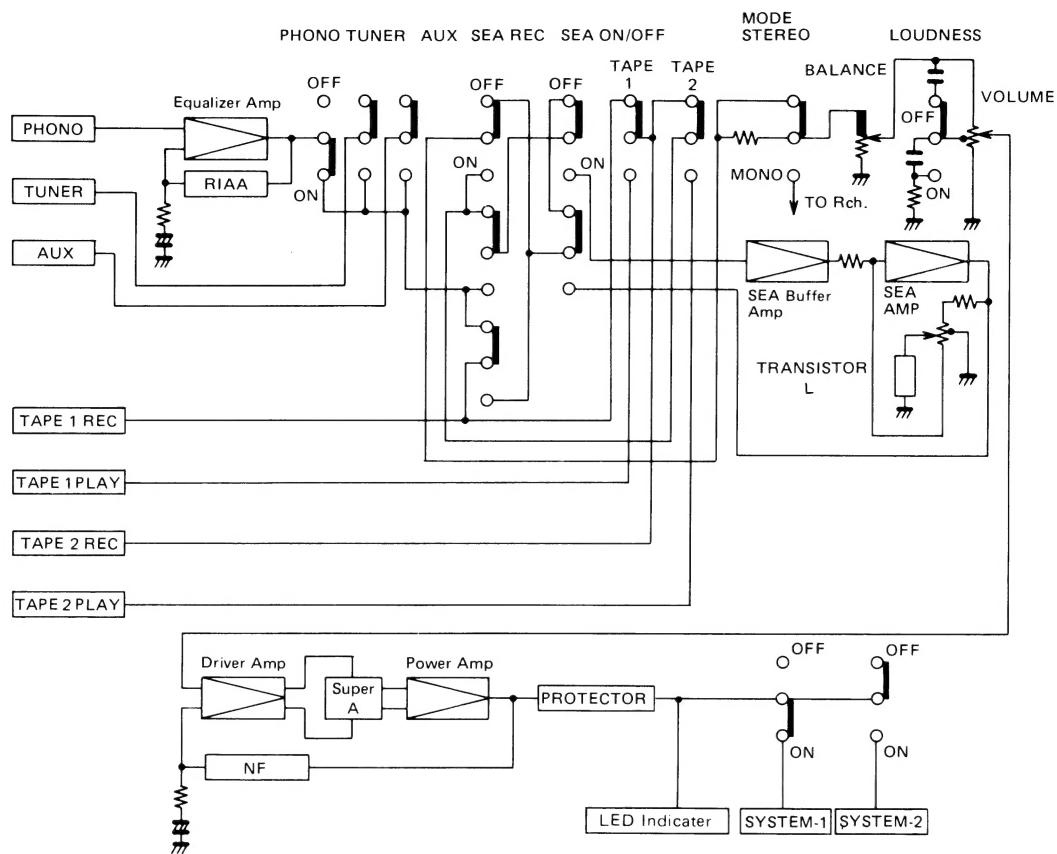
△ : Safety Parts

Fig. 4A

## 4. Exploded View



## 5. Block Diagram



## 6. New Technology of IC in Super A Circuit

A newly developed IC has been employed in the heart of the super A bias circuit, thereby simplifying the circuit and improving its performance and reliability. Since the circuit

operation remains entirely the same as the conventional circuit, please refer to page 7 "Power Amplifying Section of Super A System" of the A-X5 service manual (No. 2479).

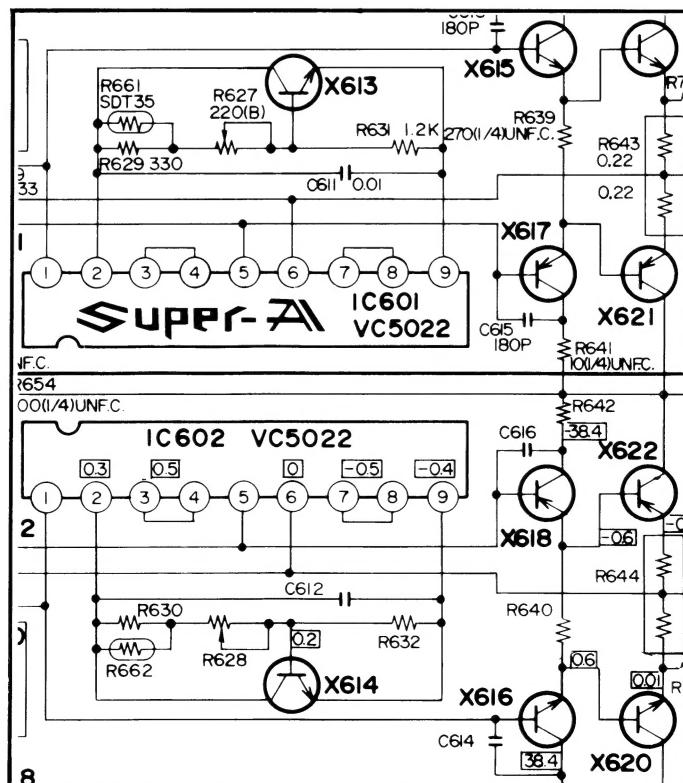


Fig. 7

## 7. Power Amplifier Idling Current Adjustment Procedure

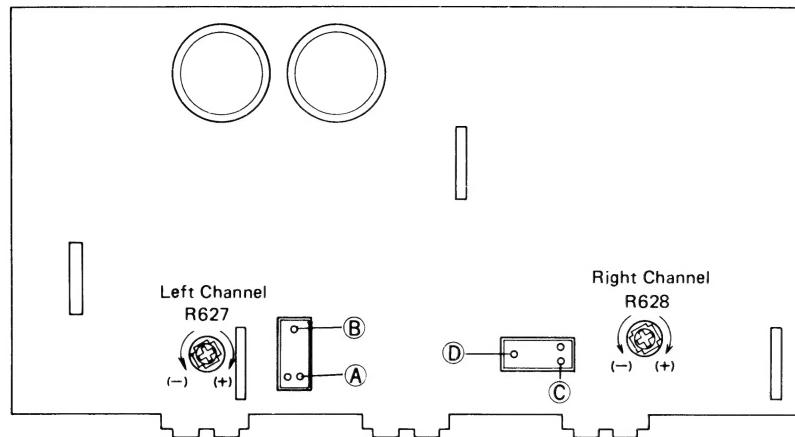


Fig. 8

- Before turning on the power, turn the semi-fixed resistors <R627 for L channel and R628 for R channel> of the power amplifier circuit board fully counterclockwise.
- Adjust the semi-fixed resistors (R627 and R628) so that the voltage at the following test points of the power amplifier circuit board is within a range of 10 mV – 14 mV after the power is turned on.  
L channel: Measure the voltage between test point A (emitter of X619) and output at the test point B.  
R channel: Measure the voltage between test point C (emitter of X620) and output at the test point D.

- Readjust resistors R627 and R628 about 5 minutes after the power is turned on (the heat sink temperature must be sufficiently high) so that the voltage at the test points becomes 12 mV.

Confirm that the voltage does not vary when the heat sink temperature increases further.

Note: Be sure to perform the measurement with the probes and cabinet of the measuring equipment separated from the grounding terminals of A-X2 or of other measuring equipment.

## 8. Printed Circuit Board Ass'y and Parts List

### 8-(1) TXX-241A Power Amp., Volume Control & Other Functions Split P.C. Board Ass'y

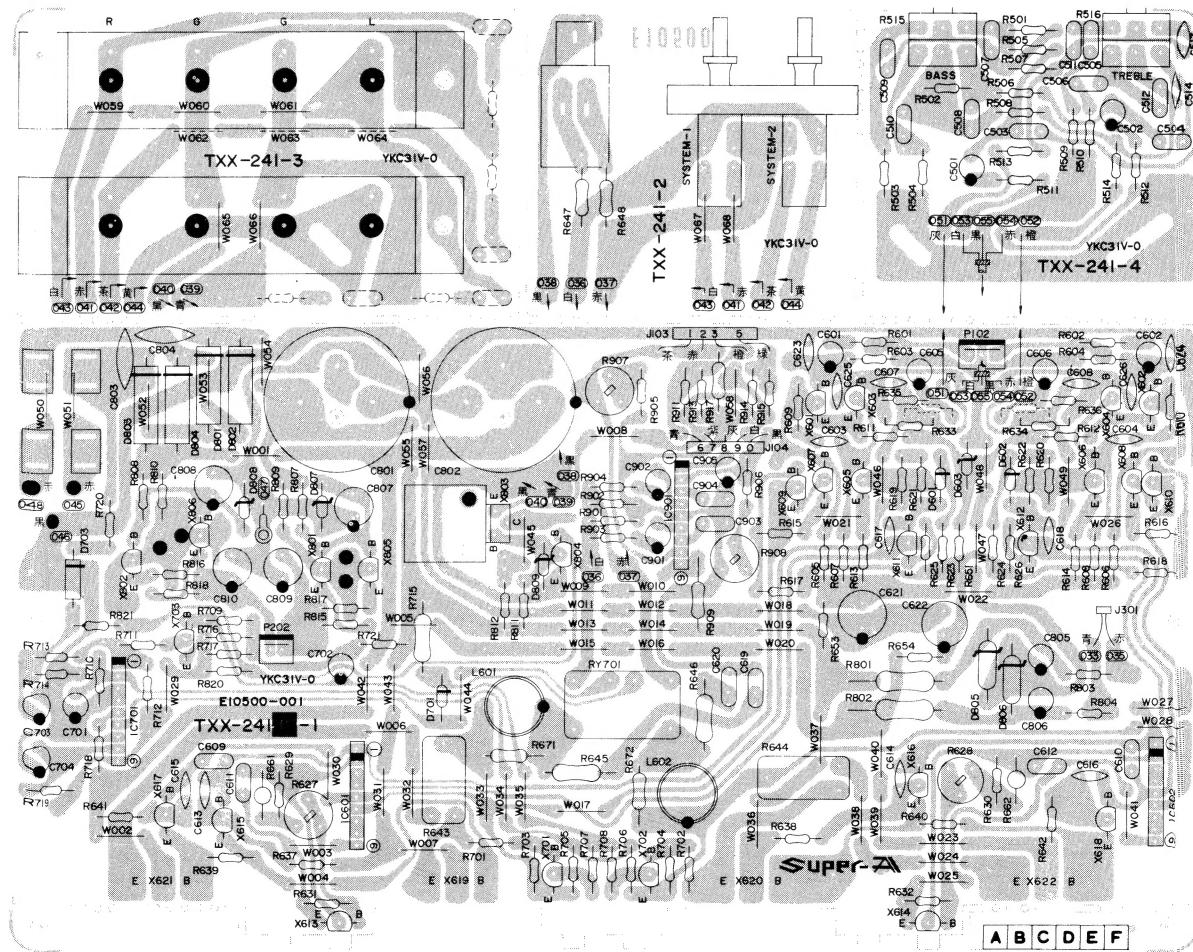


Fig. 9

### Each Individual P.C. Board Location

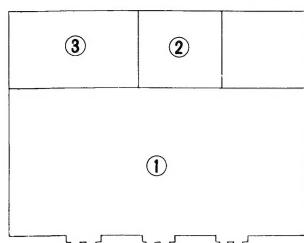


Fig. 10

- ① TXX-241A-1 : Power Amp. P.C. Board Ass'y
- ② TXX-241A-2 : Speaker Select Switch & Headphones P.C. Board Ass'y
- ③ TXX-241A-3 : Speaker Terminal P.C. Board Ass'y

### Note:

The Specific symbols (赤, 黒, 白, ... etc.) on a surface of above P.C. Board are actually unrelated to the repair service and are significant denotement in order to process the proper assembly of P.C. Board at the factory.

### Transistors

| Item No. | Part Number   | Rating |         | Description     |
|----------|---------------|--------|---------|-----------------|
|          |               | Pc     | fT      |                 |
| X601     | 2SC1775AV(F1) | 0.2 W  | 200 MHz | Silicon Hitachi |
| X602     | 2SC1775AV(F1) | "      | "       | " "             |
| X603     | 2SC1775AV(F1) | "      | "       | " "             |
| X604     | 2SC1775AV(F1) | "      | "       | " "             |
| X605     | 2SA1084(E)    | 0.4 W  | 120 MHz | " "             |
| X606     | 2SA1084(E)    | "      | "       | " "             |
| X607     | 2SA1084(E)    | "      | "       | " "             |
| X608     | 2SA1084(E)    | "      | "       | " "             |
| X609     | 2SA1084(E)    | "      | "       | " "             |
| X610     | 2SA1084(E)    | "      | "       | " "             |
| X611     | 2SC2546(E,F)  | "      | 90 MHz  | " "             |
| X612     | 2SC2546(E,F)  | "      | "       | " "             |
| X613     | 2SC2546(E,F)  | "      | "       | " "             |
| X614     | 2SC2546(E,F)  | "      | "       | " "             |
| X615     | 2SC2235(O,Y)  | 0.9 W  | 120 MHz | Toshiba         |
| X616     | 2SC2235(O,Y)  | "      | "       | " "             |
| X617     | 2SA965(O,Y)   | "      | "       | " "             |
| X618     | 2SA965(O,Y)   | "      | "       | " "             |
| X619     | 2SD845LB(R,O) | 120 W  | 20 MHz  | " "             |
| X620     | 2SD845LB(R,O) | "      | "       | " "             |
| X621     | 2SB755LB(R,O) | "      | "       | " "             |
| X622     | 2SB755LB(R,O) | "      | "       | " "             |
| X701     | 2SC1775AV(F)  | 0.2 W  | 200 MHz | " Hitachi       |
| X702     | 2SC1775AV(F)  | "      | "       | " "             |
| X703     | 2SA872AV(E)   | 0.3 W  | 120 MHz | " "             |
| X801     | 2SC2235(O,Y)  | 0.9 W  | "       | Toshiba         |
| X802     | 2SA965(O,Y)   | "      | "       | " "             |
| X803     | 2SD313V(D,E)  | 30 W   | 8 MHz   | " Sanyo         |
| X804     | 2SC458(C)     | 0.2 W  | 230 MHz | " Hitachi       |
| X805     | 2SC2235(O,Y)  | 0.9 W  | 120 MHz | " Toshiba       |
| X806     | 2SA965(O,Y)   | "      | "       | " "             |

### Integrated Circuits

| Item No. | Part Number | Rating |       | Description |
|----------|-------------|--------|-------|-------------|
|          |             | Pc     | Maker |             |
| IC601    | VC5022      |        | I.C.  | Toyodengu   |
| IC602    | VC5022      |        | "     | "           |
| IC701    | TA7317P     | 0.5 W  | "     | Toshiba     |
| IC901    | TA7318P(2)  | 0.7 W  | "     | "           |

### Diodes

| Item No. | Part Number  | Rating  |                 | Description |
|----------|--------------|---------|-----------------|-------------|
|          |              | Silicon | Maker           |             |
| D601     | 1S2076-31    |         | Hitachi         |             |
| D602     | 1S2076-31    |         | "               |             |
| D603     | RD9.1EB3     |         | NEC             |             |
| D701     | 1S2076-31    |         | Hitachi         |             |
| D703     | ERB12-02RKL1 |         | Fuji            |             |
| D801     | 3D2FA-S      |         | Nihon Inter.    |             |
| D802     | 3D2FA-S      |         | "               |             |
| D803     | 3D2FA-S      |         | "               |             |
| D804     | 3D2FA-S      |         | "               |             |
| D805     | EQB01-15Z    |         | Silicon (Zener) | Fuji        |

### Diodes

| Item No. | Part Number | Rating | Description | Maker               |
|----------|-------------|--------|-------------|---------------------|
| D806     | EQB01-15Z   |        |             | Silicon Fuji        |
| D807     | RD13EB3     |        |             | Silicon NEC (Zener) |
| D807     | RD24EB3     |        |             | " "                 |
| D808     | RD24EB3     |        |             | " "                 |

### Coils

| Item No. | Part Number | Rating      | Description |
|----------|-------------|-------------|-------------|
| L601     | E04059-1R2  | 1.2 $\mu$ H | Choke Coil  |
| L602     | E04059-1R2  | "           | "           |

### Capacitors

| Item No. | Part Number | Rating        | Description       |
|----------|-------------|---------------|-------------------|
| C601     | QET51HR-225 | 2.2 $\mu$ F   | Electrolytic      |
| C602     | QET51HR-225 | "             | "                 |
| C603     | QCS21HJ-471 | 470 pF        | Ceramic           |
| C604     | QCS21HJ-471 | "             | "                 |
| C605     | QET51CR-476 | 47 $\mu$ F    | 16 V Electrolytic |
| C606     | QET51CR-476 | "             | "                 |
| C607     | QCS21HJ-100 | 10 pF         | Ceramic           |
| C608     | QCS21HJ-100 | "             | "                 |
| C609     | QFM31HK-332 | 3300 pF       | Mylar             |
| C610     | QFM31HK-332 | "             | "                 |
| C611     | QFM31HK-103 | 0.01 $\mu$ F  | "                 |
| C612     | QFM31HK-103 | "             | "                 |
| C613     | QCS21HJ-181 | 180 pF        | Ceramic           |
| C614     | QCS21HJ-181 | "             | "                 |
| C615     | QCS21HJ-181 | "             | "                 |
| C616     | QCS21HJ-181 | "             | "                 |
| C617     | QCS21HJ-151 | 150 pF        | "                 |
| C618     | QCS21HJ-151 | "             | "                 |
| C619     | QFM31HK-473 | 0.047 $\mu$ F | Mylar             |
| C620     | QFM31HK-473 | "             | "                 |
| C621     | QET51HR-107 | 100 $\mu$ F   | "                 |
| C622     | QET51HR-107 | "             | "                 |
| C623     | QCS21HJ-121 | 120 pF        | Ceramic           |
| C624     | QCS21HJ-121 | "             | "                 |
| C701     | QET51AR-107 | 100 $\mu$ F   | 10 V Electrolytic |
| C702     | QET51ER-226 | 22 $\mu$ F    | 25 V              |
| C703     | QET51HR-225 | 2.2 $\mu$ F   | 50 V              |
| C704     | QET51ER-226 | 22 $\mu$ F    | 25 V              |
| C801     | QEZ0057-878 | 8700 $\mu$ F  | 56 V              |
| C802     | QEZ0057-878 | "             | "                 |
| C803     | QFM32AK-104 | 0.1 $\mu$ F   | 100 V Mylar       |
| C804     | QCE22HP-103 | 0.01 $\mu$ F  | 500 V Ceramic     |
| C805     | QET51CR-226 | 22 $\mu$ F    | 16 V Electrolytic |
| C806     | QET51CR-226 | "             | "                 |
| C807     | QET51HR-107 | 100 $\mu$ F   | 50 V              |
| C808     | QET51HR-107 | "             | "                 |
| C901     | QET51HR-105 | 1 $\mu$ F     | "                 |
| C902     | QET51HR-105 | "             | "                 |
| C903     | QFM31HK-103 | 0.01 $\mu$ F  | Mylar             |
| C904     | QFM31HK-103 | "             | "                 |
| C905     | QET51HR-474 | 0.47 $\mu$ F  | "                 |
| C625     | QCS21HJ-101 | 100 pF        | Electrolytic      |
| C626     | QCS21HJ-101 | "             | Ceramic           |

## Resistors

| Item No. | Part Number  | Rating |       | Description      |
|----------|--------------|--------|-------|------------------|
| R601     | QRD141J-222S | 2.2 kΩ | 1/4 W | Carbon           |
| R602     | QRD141J-222S | "      | "     | "                |
| R603     | QRD141J-104S | 100 kΩ | "     | "                |
| R604     | QRD141J-104S | "      | "     | "                |
| R605     | QRD141J-272S | 2.7 kΩ | "     | "                |
| R606     | QRD141J-272S | "      | "     | "                |
| R607     | QRD141J-272S | "      | "     | "                |
| R608     | QRD141J-272S | "      | "     | "                |
| R609     | QRD141J-331S | 330 Ω  | "     | "                |
| R610     | QRD141J-331S | "      | "     | "                |
| R611     | QRD141J-472S | 4.7 kΩ | "     | "                |
| R612     | QRD141J-472S | "      | "     | "                |
| R613     | QRD149J-101S | 100 Ω  | "     | "                |
| R614     | QRD149J-101S | "      | "     | "                |
| R615     | QRD141J-391S | 390 Ω  | "     | "                |
| R616     | QRD141J-391S | "      | "     | "                |
| R617     | QRD141J-223S | 22 kΩ  | "     | "                |
| R618     | QRD141J-223S | "      | "     | "                |
| R619     | QRD141J-242S | 2.4 kΩ | "     | "                |
| R620     | QRD141J-242S | "      | "     | "                |
| R621     | QRD141J-242S | "      | "     | "                |
| R622     | QRD141J-242S | "      | "     | "                |
| R623     | QRD149J-181S | 180 Ω  | "     | "                |
| R624     | QRD149J-181S | "      | "     | "                |
| R625     | QRD149J-181S | "      | "     | "                |
| R626     | QRD149J-181S | "      | "     | "                |
| R627     | QVP4A0B-221  | 220 Ω  | "     | Variable         |
| R628     | QVP4A0B-221  | "      | "     | "                |
| R629     | QRD141J-331S | 330 Ω  | 1/4 W | Carbon           |
| R630     | QRD141J-331S | "      | "     | "                |
| R631     | QRD141J-122S | 1.2 kΩ | "     | "                |
| R632     | QRD141J-122S | "      | "     | "                |
| R633     | QRD141J-104S | 100 kΩ | 1/4 W | Carbon           |
| R634     | QRD141J-104S | "      | "     | "                |
| R635     | QRD141J-821S | 820 Ω  | "     | "                |
| R636     | QRD141J-821S | "      | "     | "                |
| R637     | QRD149J-100S | 10 Ω   | "     | "                |
| R638     | QRD149J-100S | "      | "     | "                |
| R639     | QRD149J-271S | 270 Ω  | "     | "                |
| R640     | QRD149J-271S | "      | "     | "                |
| R641     | QRD149J-100S | 10 Ω   | "     | "                |
| R642     | QRD149J-100S | "      | "     | "                |
| R643     | ERF032K-R22  | 0.22 Ω | 3 W   | Uninflammable    |
| R644     | ERF032K-R22  | "      | "     | "                |
| R645     | QRX016J-100S | 10 Ω   | 1 W   | Oxide Metal Film |
| R646     | QRX016J-100S | "      | "     | "                |
| R647     | QRG017J-221S | 220 Ω  | "     | "                |
| R648     | QRG017J-221S | "      | "     | "                |
| R651     | QRD141J-562S | 5.6 kΩ | 1/4 W | Carbon           |
| R653     | QRD149J-101S | 100 Ω  | "     | "                |
| R654     | QRD149J-101S | "      | "     | "                |
| R661     | SDT35        | 350 Ω  | 1 W   | Varistor         |
| R662     | SDT35        | "      | "     | "                |
| R671     | QRD129J-4R7  | 4.7 Ω  | 1/2 W | Carbon           |
| R672     | QRD129J-4R7  | "      | "     | "                |
| R701     | QRD141J-152S | 1.5 kΩ | 1/4 W | "                |
| R702     | QRD141J-152S | "      | "     | "                |
| R703     | QRD141J-681S | 680 Ω  | "     | "                |
| R704     | QRD141J-681S | "      | "     | "                |
| R705     | QRD141J-104S | 100 kΩ | "     | "                |
| R706     | QRD141J-104S | "      | "     | "                |
| R707     | QRD141J-123S | 12 kΩ  | "     | "                |
| R708     | QRD141J-123S | "      | "     | "                |
| R709     | QRD141J-103S | 10 kΩ  | "     | "                |
| R710     | QRD141J-104S | 100 kΩ | "     | "                |

## Resistors

| Item No. | Part Number  | Rating |       | Description      |
|----------|--------------|--------|-------|------------------|
| R711     | QRD141J-473S | 47 kΩ  | 1/4 W | Carbon           |
| R712     | QRD141J-683S | 68 kΩ  | "     | "                |
| R713     | QRD141J-334S | 330 kΩ | "     | "                |
| R714     | QRD141J-682S | 6.8 kΩ | "     | "                |
| R715     | QRG017J-821S | 820 Ω  | 1 W   | Oxide Metal Film |
| R716     | QRD141J-332S | 3.3 kΩ | 1/4 W | Carbon           |
| R717     | QRD141J-223S | 22 kΩ  | "     | "                |
| R718     | QRD141J-153S | 15 kΩ  | "     | "                |
| R719     | QRD141J-224S | 220 kΩ | "     | "                |
| R720     | QRD149J-100S | 10 Ω   | "     | "                |
| R721     | QRD149J-100S | "      | "     | "                |
| R801     | QRG017J-122S | 1.2 kΩ | 1 W   | Oxide Metal Film |
| R802     | QRG017J-122S | "      | "     | "                |
| R803     | QRD141J-820S | 82 Ω   | 1/4 W | Carbon           |
| R804     | QRD141J-820S | "      | "     | "                |
| R807     | QRD141J-472S | 4.7 kΩ | "     | "                |
| R808     | QRD141J-472S | "      | "     | "                |
| R809     | QRD149J-5R6S | 5.6 Ω  | "     | "                |
| R810     | QRD149J-5R6S | "      | "     | "                |
| R811     | QRD141J-682S | 6.8 kΩ | "     | "                |
| R812     | QRD149J-180S | 18 Ω   | "     | "                |
| R815     | QRD149J-100S | 10 Ω   | "     | "                |
| R816     | QRD149J-100S | "      | "     | "                |
| R817     | QRD149J-100S | "      | "     | "                |
| R818     | QRD149J-100S | "      | "     | "                |
| R820     | QRD141J-683S | 68 kΩ  | "     | "                |
| R821     | QRD141J-334S | 330 kΩ | "     | "                |
| R901     | QRD141J-104S | 100 kΩ | "     | "                |
| R902     | QRD141J-104S | "      | "     | "                |
| R903     | QRD141J-623S | 62 kΩ  | "     | "                |
| R904     | QRD141J-623S | "      | "     | "                |
| R905     | QRD141J-102S | 1 kΩ   | "     | "                |
| R906     | QRD141J-102S | "      | "     | "                |
| R907     | QVP4A0B-102  | "      | "     | Variable         |
| R908     | QVP4A0B-102  | "      | "     | "                |
| R909     | QRG017J-182S | 1.8 kΩ | 1 W   | Oxide Metal Film |
| R911     | QRD141J-273S | 27 kΩ  | 1/4 W | Carbon           |
| R913     | QRD141J-182S | 1.8 kΩ | 1/4 W | "                |
| R914     | QRD141J-203S | 20 kΩ  | "     | "                |
| R915     | QRD141J-113S | 11 kΩ  | "     | "                |
| R917     | QRD129J-471  | 470 Ω  | 1/2 W | "                |

## Others

| Item No. | Part Number  | Rating | Description  |
|----------|--|--------|--|
| S601     | E65119-002<br>QSP0023-008<br>QMS6302-105<br>QMV5005-003              |        | Screw<br>Push Switch<br>Headphone Jack<br>3 Pin Plug Ass'y<br>Relay Switch         |
| RY701    | ESK6D24-213  |        |  |
|          | EWS012-039<br>EWS075-003<br>EWS075-004<br>E66998-003<br>E03572-007EJ |        | 2 Pin Socket Wire Ass'y<br>5 Pin Socket Wire Ass'y<br>" IC Cap<br>Speaker Terminal |
|          | E300942-002<br>E43727-001<br>E61537-001<br>E67292-001<br>E67293-001  |        | Heat Sink<br>Tab<br>Heat Sink<br>Heat Sink Bracket (Left)<br>"(Right)              |
|          | E67294-001<br>QMV5005-002<br>E65654-001                              |        | Clip (X513, 614)<br>2 Pin Plug Ass'y<br>Spacer                                     |

△: Safety Parts

## 8-(2) TXX-240 Tone Controls & Other Select Switches Split P.C. Board Ass'y

The number of TXX-240 varies according to the areas employed. Refer to table below.

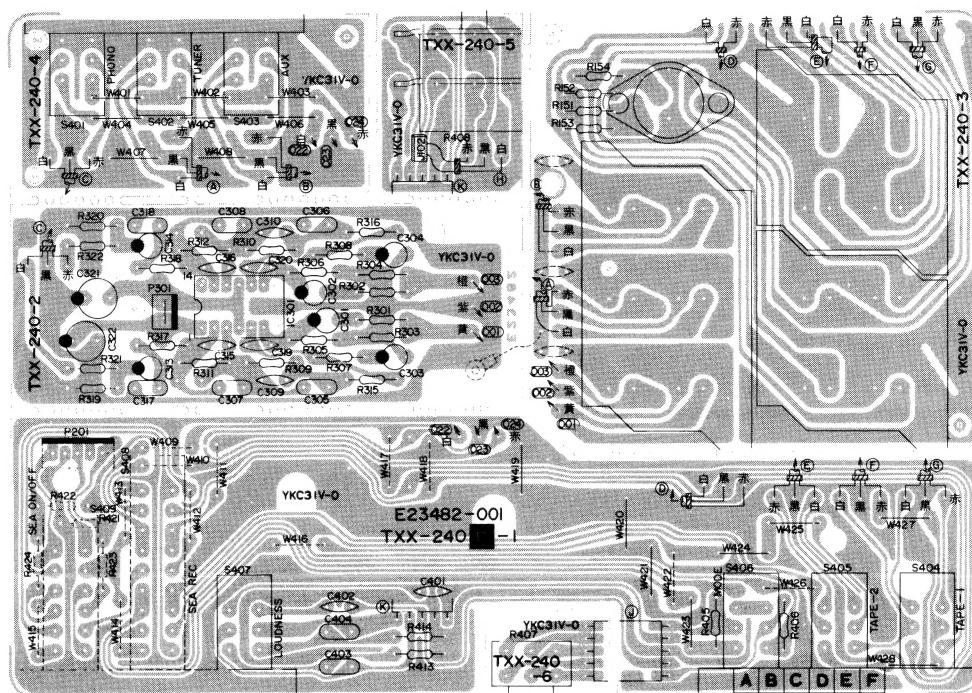


Fig. 11

### Each individual P.C. Board Location

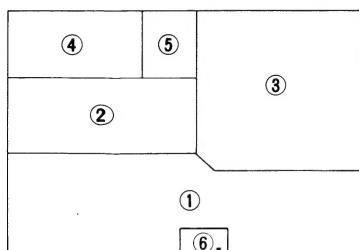


Fig. 12

#### Note:

The Specific symbols (赤, 黒, 白, .etc.) on a surface of above P.C. Board are actually unrelated to the repair service and are significant denotement in order to process the proper assembly of P.C. Board at the factory.

### Integrated Circuits

| Item No. | Part Number | Rating | Description  |
|----------|-------------|--------|--------------|
|          |             | Pc     | Maker        |
| IC301    | HA1452W     | 0.54W  | I.C. Hitachi |

### Capacitors

| Item No. | Part Number | Rating      | Description       |
|----------|-------------|-------------|-------------------|
| C301     | QET51HR-475 | 4.7 $\mu$ F | 50 V Electrolytic |
| C302     | QET51HR-475 | "           | "                 |
| C303     | QET51AR-476 | 47 $\mu$ F  | 10 V "            |
| C304     | QET51AR-476 | "           | "                 |
| C305     | QFM31HJ-182 | 1800 pF     | 50 V Mylar        |
| C306     | QFM31HJ-182 | "           | "                 |
| C307     | QFM31HJ-332 | 3300 pF     | "                 |
| C308     | QFM31HJ-332 | "           | "                 |
| C309     | QCS21HJ-121 | 120 pF      | 50 V Ceramic      |
| C310     | QCS21HJ-121 | "           | "                 |
| C311     | QFM31HJ-332 | 3300 pF     | " Mylar           |
| C312     | QFM31HJ-332 | "           | "                 |
| C313     | QET51HR-475 | 4.7 $\mu$ F | " Electrolytic    |
| C314     | QET51HR-475 | "           | "                 |
| C315     | QCS21HJ-151 | 150 pF      | " Ceramic         |

- ① TXX-240-1 : Tape Select & Loudness Switch P.C. Board Ass'y
- ② TXX-240-2 : Equalizer Amp. P.C. Board Ass'y
- ③ TXX-240-3 : Pin Jack P.C. Board Ass'y
- ④ TXX-240-4 : Source Selector Switch P.C. Board Ass'y
- ⑤ TXX-240-5 : Main Volume P.C. Board Ass'y
- ⑥ TXX-240-6 : Balance Control P.C. Board Ass'y

#### Note:

In  should be indicated an area code according to the table shown below when placing an order.

| Designated Areas | P.C. Board Ass'y                                  |
|------------------|---|
| U.S.A. & Canada  | TXX-240 <input checked="" type="checkbox"/> -1, 3 |
| All Other Areas  | TXX-240 <input type="checkbox"/> -1, 3            |

### Capacitors

| Item No. | Part Number | Rating        | Description       |
|----------|-------------|---------------|-------------------|
| C316     | QCS21HJ-151 | 150 pF        | Ceramic           |
| C317     | QFM31HK-332 | 3300 pF       | Mylar             |
| C318     | QFM31HK-332 | "             | "                 |
| C319     | QCS21HJ-101 | 100 pF        | Ceramic           |
| C320     | QCS21HJ-101 | "             | "                 |
| C321     | QET51CR-107 | 100 $\mu$ F   | 16 V Electrd ytic |
| C322     | QET51CR-107 | "             | "                 |
| C401     | QCS21HJ-221 | 220 pF        | Ceramic           |
| C402     | QCS21HJ-221 | "             | "                 |
| C403     | QFM31HK-333 | 0.033 $\mu$ F | Mylar             |
| C404     | QFM31HK-333 | "             | "                 |

### Resistors

| Item No. | Part Number  | Rating               | Description                     |
|----------|--------------|----------------------|---------------------------------|
| R151     | QRD141J-823S | 82 k $\Omega$ 1/4 W  | Carbon (Except U.S.A. & Canada) |
| R152     | QRD141J-823S | "                    | "                               |
| R153     | QRD141J-334S | 330 k $\Omega$ "     | "                               |
| R154     | QRD141J-334S | "                    | "                               |
| R301     | QRD141J-222S | 2.2 k $\Omega$ "     | Carbon                          |
| R302     | QRD141J-222S | "                    | "                               |
| R303     | QRD141J-104S | 100 k $\Omega$ "     | "                               |
| R304     | QRD141J-104S | "                    | "                               |
| R305     | QRD141J-104S | 100 k $\Omega$ 1/4 W | Carbon                          |

### Resistors

| Item No. | Part Number  | Rating |   | Description                 |
|----------|--------------|--------|---|-----------------------------|
| R306     | QRD141J-104S | "      | " | "                           |
| R307     | QRD141J-821S | 820 Ω  | " | "                           |
| R308     | QRD141J-821S | "      | " | "                           |
| R309     | QRD141J-393S | 39 kΩ  | " | "                           |
| R310     | QRD141J-393S | "      | " | "                           |
| R311     | QRD141J-474S | 470 kΩ | " | "                           |
| R312     | QRD141J-474S | "      | " | "                           |
| R315     | QRD141J-122  | 1.2 kΩ | " | "                           |
| R316     | QRD141J-122  | "      | " | "                           |
| R317     | QRD141J-470S | 47 Ω   | " | "                           |
| R318     | QRD141J-470S | "      | " | "                           |
| R319     | QRD141J-104S | 100 kΩ | " | "                           |
| R320     | QRD141J-104S | "      | " | "                           |
| R321     | QRD141J-471S | 470 Ω  | " | "                           |
| R322     | QRD141J-471S | "      | " | "                           |
| R405     | QRD141J-562S | 5.6 kΩ | " | "                           |
| R406     | QRD141J-562S | "      | " | "                           |
| R407     | QVD7A2M-1F5V | 250 kΩ | " | Variable (Balance)          |
| R408     | QVC4A2B-AF5V | "      | " | Variable<br>(Master Volume) |

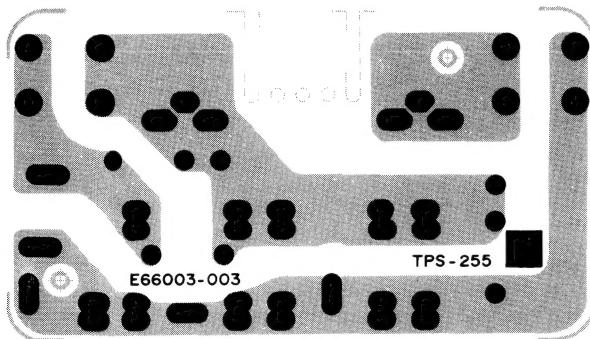
### Resistors

| Item No. | Part Number  | Rating |       | Description |
|----------|--------------|--------|-------|-------------|
| R413     | QRD141J-223S | 22 kΩ  | 1/4 W | Carbon      |
| R414     | QRD141J-223S | "      | "     | "           |
| R421     | QRD141J-104S | 100 kΩ | "     | "           |
| R422     | QRD141J-104S | "      | "     | "           |
| R423     | QRD141J-331S | 330 Ω  | "     | "           |
| R424     | QRD141J-331S | "      | "     | "           |

### Others

| Item No. | Part Number | Rating | Description                         |
|----------|-------------|--------|-------------------------------------|
| S401     | QSP0023-011 |        | Push Switch (Source)                |
| S404     | QSP0023-010 |        | " (Tape)                            |
| S407     | QSP0023-009 |        | " (SEA)                             |
|          | QMV5005-002 |        | 2 Pin Plug Ass'y                    |
|          | EWR35A-10NN |        | Flat Wire                           |
|          | EWR35A-15NN |        | "                                   |
|          | EWS013-039  |        | 3 Pin Socket Wire Ass'y             |
|          | E03591-42D  |        | 4 Pin Pin Jack                      |
|          | E03591-62D  |        | 6 Pin Pin Jack                      |
|          | E03623-003  |        | Din Socket (Except U.S.A. & Canada) |

## 8-(3) TPS-255 B AC Fuse P.C. Board Ass'y

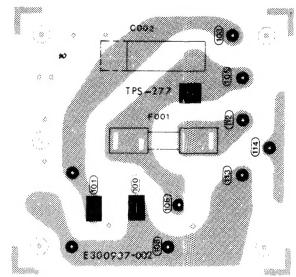


for U.S.A. & Canada

Fig. 13

| Item No.   | Part Number  | Rating        | Description |
|------------|--------------|---------------|-------------|
| C001       | QCZ9014-103A | 0.01 μF 125 V | Ceramic     |
|            | QMC0637-003  |               | AC Outlet   |
| E03675-004 |              |               | Fuse Clip   |
| E43727-001 |              |               | Tab (⊥)     |
| E65508-001 |              |               | Tab (⊥)     |

## 8-(4) TPS-277 AC Fuse P.C. Board Ass'y



TPS-277E: for Europe  
TPS-277FBS: for U.K.  
TPS-277I: for Australia & Europe  
TPS-277JBS: for U.K.

| Description           | Part Number                       |
|-----------------------|-----------------------------------|
| Capacitor (C001/C002) | TPS-277E,<br>TPS-277I             |
| Tab (⊥)               | QFZ9010-103<br>(0.01 μF/250 V~)   |
| Tab (⊥)               | E43727-002                        |
| Fuse Clip             | E65508-001                        |
| Fuse Label            | E48965-002                        |
|                       | E67132-T1R6                       |
|                       | TPS-277FBS,<br>TPS-277JBS         |
|                       | QFZ9010-103BS<br>(0.01 μF/250 V~) |
|                       | E43727-002                        |
|                       | E65508-001                        |
|                       | E48965-002                        |
|                       | E67132-T1R6                       |

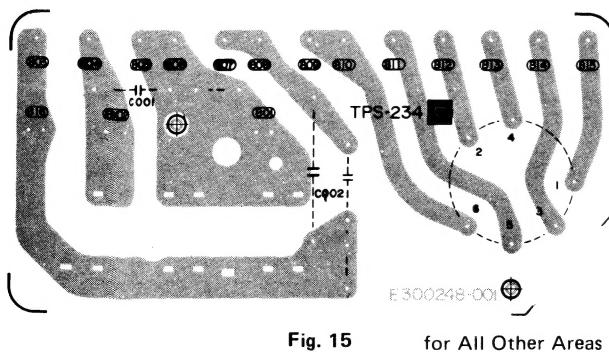


Fig. 15

for All Other Areas

### Capacitor

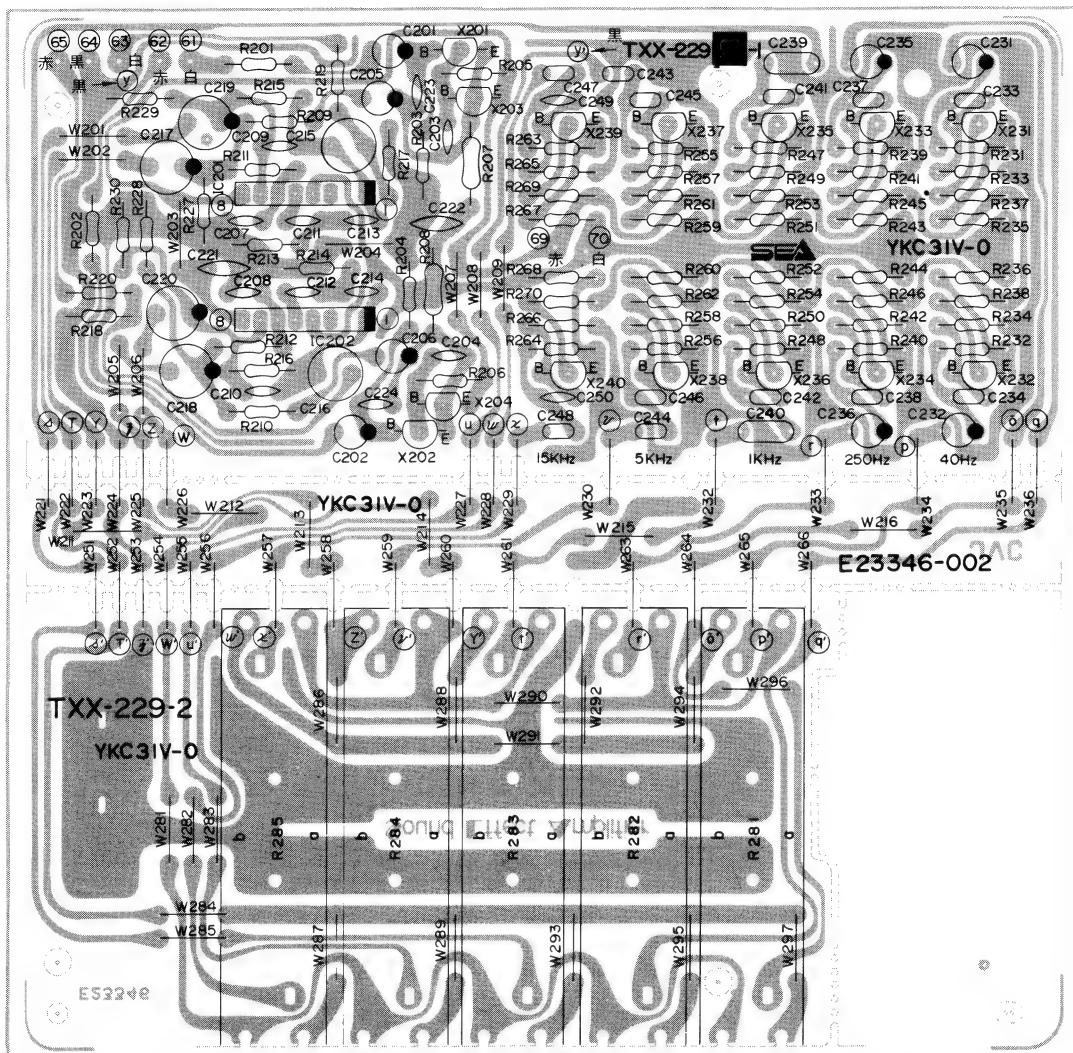
| Item No. | Part Number | Rating          | Description    |
|----------|-------------|-----------------|----------------|
| C001/002 | QFH53BM-103 | 0.01 μF AC500 V | Film Capacitor |

### Others

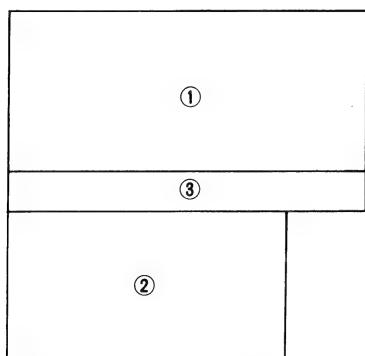
| Item No.    | Part Number | Rating | Description      |
|-------------|-------------|--------|------------------|
|             | OMC0637-003 |        | AC Outlet        |
| E03675-004  |             |        | Fuse Clip        |
| E43727-001  |             |        | Tab (⊥)          |
| E65508-001  |             |        | Tab (⊥)          |
| QSR0085-001 |             |        | Voltage Selector |

△: Safety parts

## 8-(6) TXX-229B SEA (Sound Effect Amplifier) P.C. Board Ass'y



### Each Individual P.C. Board Location



- ① TXX-229-1 : SEA Amp. P.C. Board Ass'y
- ② TXX-229-2 : SEA Volume Control P.C. Board Ass'y
- ③ TXX-229 : Connector P.C. Board Ass'y

### Note:

The Specific symbols (赤, 黒, 白, . . . etc.) on a surface of above P.C. Board are actually unrelated to the repair service and are significant denotement in order to process the proper assembly of P.C. Board at the factory.

### Transistors

| Item No. | Part Number    | Rating |         | Description |                 |
|----------|----------------|--------|---------|-------------|-----------------|
|          |                | Pc     | fT      | Marker      | Maker           |
| X201     | 2SC1775AV(E,F) | 0.2 W  | 200 MHz | "           | Silicon Hitachi |
| X202     | 2SC1775AV(E,F) | "      | "       | "           | "               |
| X203     | 2SA1084(E)     | 0.4 W  | 120 MHz | "           | "               |
| X204     | 2SA1084(E)     | "      | "       | "           | "               |
| X231     | 2SC1775AV(E,F) | 0.2 W  | 200 MHz | "           | "               |
| X232     | 2SC1775AV(E,F) | "      | "       | "           | "               |
| X233     | 2SC1775AV(E,F) | "      | "       | "           | "               |
| X234     | 2SC1775AV(E,F) | "      | "       | "           | "               |
| X235     | 2SC1775AV(E,F) | "      | "       | "           | "               |
| X236     | 2SC1775AV(E,F) | "      | "       | "           | "               |
| X237     | 2SC1775AV(E,F) | "      | "       | "           | "               |
| X238     | 2SC1775AV(E,F) | "      | "       | "           | "               |
| X239     | 2SC1775AV(E,F) | "      | "       | "           | "               |
| X240     | 2SC1775AV(E,F) | "      | "       | "           | "               |

**Integrated Circuits**

| Item No. | Part Number | Rating |       | Description |
|----------|-------------|--------|-------|-------------|
|          |             | Pc     | Maker |             |
| IC201    | HA1457      | 0.5 W  | IC    | Hitachi     |
| IC202    | HA1457      | "      | "     | "           |

**Capacitors**

| Item No. | Part Number | Rating        |      | Description                   |
|----------|-------------|---------------|------|-------------------------------|
| C201     | QEB51EM-225 | 2.2 $\mu$ F   | 25 V | Low Leak Current Electrolytic |
| C202     | QEB51EM-225 | "             | "    | "                             |
| C203     | QCS21HJ-120 | 12pF          | 50 V | Ceramic                       |
| C204     | QCS21HJ-120 | "             | "    | "                             |
| C205     | QEB51EM-225 | 2.2 $\mu$ F   | 25 V | Low Leak Current Electrolytic |
| C206     | QEB51EM-225 | "             | "    | "                             |
| C207     | QCS21HJ-151 | 150 pF        | 50 V | Ceramic                       |
| C208     | QCS21HJ-151 | "             | "    | "                             |
| C209     | QCS21HJ-151 | "             | "    | "                             |
| C210     | QCS21HJ-151 | "             | "    | "                             |
| C211     | QCS21HJ-470 | 47 pF         | "    | "                             |
| C212     | QCS21HJ-470 | "             | "    | "                             |
| C213     | QCS21HJ-271 | 270 pF        | "    | "                             |
| C214     | QCS21HJ-271 | "             | "    | "                             |
| C215     | QEZ0046-475 | 4.7 $\mu$ F   | "    | Non Polar Electrolytic        |
| C217     | QET51ER-476 | 47 $\mu$ F    | 25 V | Electrolytic                  |
| C218     | QET51ER-476 | "             | "    | "                             |
| C219     | QET51ER-476 | "             | "    | "                             |
| C220     | QET51ER-476 | "             | "    | "                             |
| C221     | QCF21HP-473 | 0.047 $\mu$ F | 50 V | Ceramic                       |
| C222     | QCF21HP-473 | "             | "    | "                             |
| C223     | QCS21HJ-101 | 100 pF        | "    | "                             |
| C224     | QCS21HJ-101 | "             | "    | "                             |
| C231     | QET51HR-475 | 4.7 $\mu$ F   | "    | Electrolytic                  |
| C232     | QET51HR-475 | "             | "    | "                             |
| C233     | QFM31HJ-223 | 0.022 $\mu$ F | "    | Mylar                         |
| C234     | QFM31HJ-223 | "             | "    | "                             |
| C235     | QET51HR-474 | 0.47 $\mu$ F  | "    | Electrolytic                  |
| C236     | QET51HR-474 | "             | "    | "                             |
| C237     | QFM31HJ-822 | 8200 pF       | "    | Mylar                         |
| C238     | QFM31HJ-822 | "             | "    | "                             |
| C239     | QFM31HJ-124 | 0.12 $\mu$ F  | "    | "                             |
| C240     | QFM31HJ-124 | "             | "    | "                             |
| C241     | QFM31HJ-332 | 3300 pF       | "    | "                             |
| C242     | QFM31HJ-332 | "             | "    | "                             |
| C243     | QFM31HJ-273 | 0.027 $\mu$ F | "    | "                             |
| C244     | QFM31HJ-273 | "             | "    | "                             |
| C245     | QFM31HJ-102 | 1000pF        | "    | "                             |
| C246     | QFM31HJ-102 | "             | "    | "                             |
| C247     | QFM31HJ-562 | 5600 pF       | "    | "                             |
| C248     | QFM31HJ-562 | "             | "    | "                             |
| C249     | QCS21HJ-681 | 680 pF        | "    | Ceramic                       |
| C250     | QCS21HJ-681 | "             | "    | "                             |

**Resistors**

| Item No. | Part Number   | Rating         |       | Description |
|----------|---------------|----------------|-------|-------------|
| R201     | QRD141J-471SY | 470 $\Omega$   | 1/4 W | Carbon      |
| R202     | QRD141J-471SY | "              | "     | "           |
| R203     | QRD141J-104SY | 100 k $\Omega$ | "     | "           |
| R204     | QRD141J-104SY | "              | "     | "           |
| R205     | QRD141J-472SY | 4.7 k $\Omega$ | "     | "           |
| R206     | QRD141J-472SY | "              | "     | "           |
| R207     | QRD129J-332   | 3.3 k $\Omega$ | 1/2 W | "           |
| R208     | QRD129J-332   | "              | "     | "           |
| R209     | QRD141J-472SY | 4.7 k $\Omega$ | 1/4 W | "           |
| R210     | QRD141J-472SY | "              | "     | "           |

**Resistors**

| Item No. | Part Number   | Rating         |       | Description      |
|----------|---------------|----------------|-------|------------------|
| R211     | QRD141J-100SY | 10 $\Omega$    | 1/4 W | Carbon           |
| R212     | QRD141J-100SY | "              | "     | "                |
| R213     | QRD141J-182SY | 1.8 k $\Omega$ | "     | "                |
| R214     | QRD141J-182SY | "              | "     | "                |
| R215     | QRD141J-472SY | 4.7 k $\Omega$ | "     | "                |
| R216     | QRD141J-472SY | "              | "     | "                |
| R217     | QRD141J-224SY | 220 k $\Omega$ | "     | "                |
| R218     | QRD141J-224SY | "              | "     | "                |
| R219     | QRD141J-331SY | 330 $\Omega$   | "     | "                |
| R220     | QRD141J-331SY | "              | "     | "                |
| R227     | QRD141J-224SY | 220 k $\Omega$ | "     | "                |
| R228     | QRD141J-224SY | "              | "     | "                |
| R229     | QRD141J-224SY | "              | "     | "                |
| R230     | QRD141J-224SY | "              | "     | "                |
| R231     | QRD141J-122SY | 1.2 k $\Omega$ | "     | "                |
| R232     | QRD141J-122SY | "              | "     | "                |
| R233     | QRD141J-134SY | 130 k $\Omega$ | "     | "                |
| R234     | QRD141J-134SY | "              | "     | "                |
| R235     | QRD141J-682SY | 6.8 k $\Omega$ | "     | "                |
| R236     | QRD141J-682SY | "              | "     | "                |
| R237     | QRD141J-391SY | 390 $\Omega$   | "     | "                |
| R238     | QRD141J-391SY | "              | "     | "                |
| R239     | QRD141J-122SY | 1.2 k $\Omega$ | "     | "                |
| R240     | QRD141J-122SY | "              | "     | "                |
| R241     | QRD141J-913SY | 91 k $\Omega$  | "     | "                |
| R242     | QRD141J-913SY | "              | "     | "                |
| R243     | QRD141J-682SY | 6.8 k $\Omega$ | "     | "                |
| R244     | QRD141J-682SY | "              | "     | "                |
| R245     | QRD141J-391SY | 390 $\Omega$   | "     | "                |
| R246     | QRD141J-391SY | "              | "     | "                |
| R247     | QRD141J-122SY | 1.2 k $\Omega$ | "     | "                |
| R248     | QRD141J-122SY | "              | "     | "                |
| R249     | QRD141J-513SY | 51 k $\Omega$  | "     | "                |
| R250     | QRD141J-513SY | "              | "     | "                |
| R251     | QRD141J-682SY | 6.8 k $\Omega$ | "     | "                |
| R252     | QRD141J-682SY | "              | "     | "                |
| R253     | QRD141J-391SY | 390 $\Omega$   | "     | "                |
| R254     | QRD141J-391SY | "              | "     | "                |
| R255     | QRD141J-122SY | 1.2 k $\Omega$ | "     | "                |
| R256     | QRD141J-122SY | "              | "     | "                |
| R257     | QRD141J-333SY | 33 k $\Omega$  | "     | "                |
| R258     | QRD141J-333SY | "              | "     | "                |
| R259     | QRD141J-682SY | 6.8 k $\Omega$ | "     | "                |
| R260     | QRD141J-682SY | "              | "     | "                |
| R261     | QRD141J-391SY | 390 $\Omega$   | "     | "                |
| R262     | QRD141J-391SY | "              | "     | "                |
| R263     | QRD141J-122SY | 1.2 k $\Omega$ | "     | "                |
| R264     | QRD141J-122SY | "              | "     | "                |
| R265     | QRD141J-243SY | 24 k $\Omega$  | "     | "                |
| R266     | QRD141J-243SY | "              | "     | "                |
| R267     | QRD141J-682SY | 6.8 k $\Omega$ | "     | "                |
| R268     | QRD141J-682SY | "              | "     | "                |
| R269     | QRD141J-391SY | 390 $\Omega$   | "     | "                |
| R270     | QRD141J-391SY | "              | "     | "                |
| R281     | QVZ5010-002   | 250 k $\Omega$ | 1/8 W | Variable (40 Hz) |
| R282     | QVZ5010-002   | "              | "     | (250 Hz)         |
| R283     | QVZ5010-002   | "              | "     | (1 kHz)          |
| R284     | QVZ5010-002   | "              | "     | (5 kHz)          |
| R285     | QVZ5010-002   | "              | "     | (15 kHz)         |

**Others**

| Item No. | Part Number | Rating |  | Description             |
|----------|-------------|--------|--|-------------------------|
| J201     | EWS015-028  |        |  | 5 Pin Socket Wire Ass'y |
| J202     | EWS012-038  |        |  | 2 Pin Socket Wire Ass'y |

## 9. A-X2 Schematic Diagram

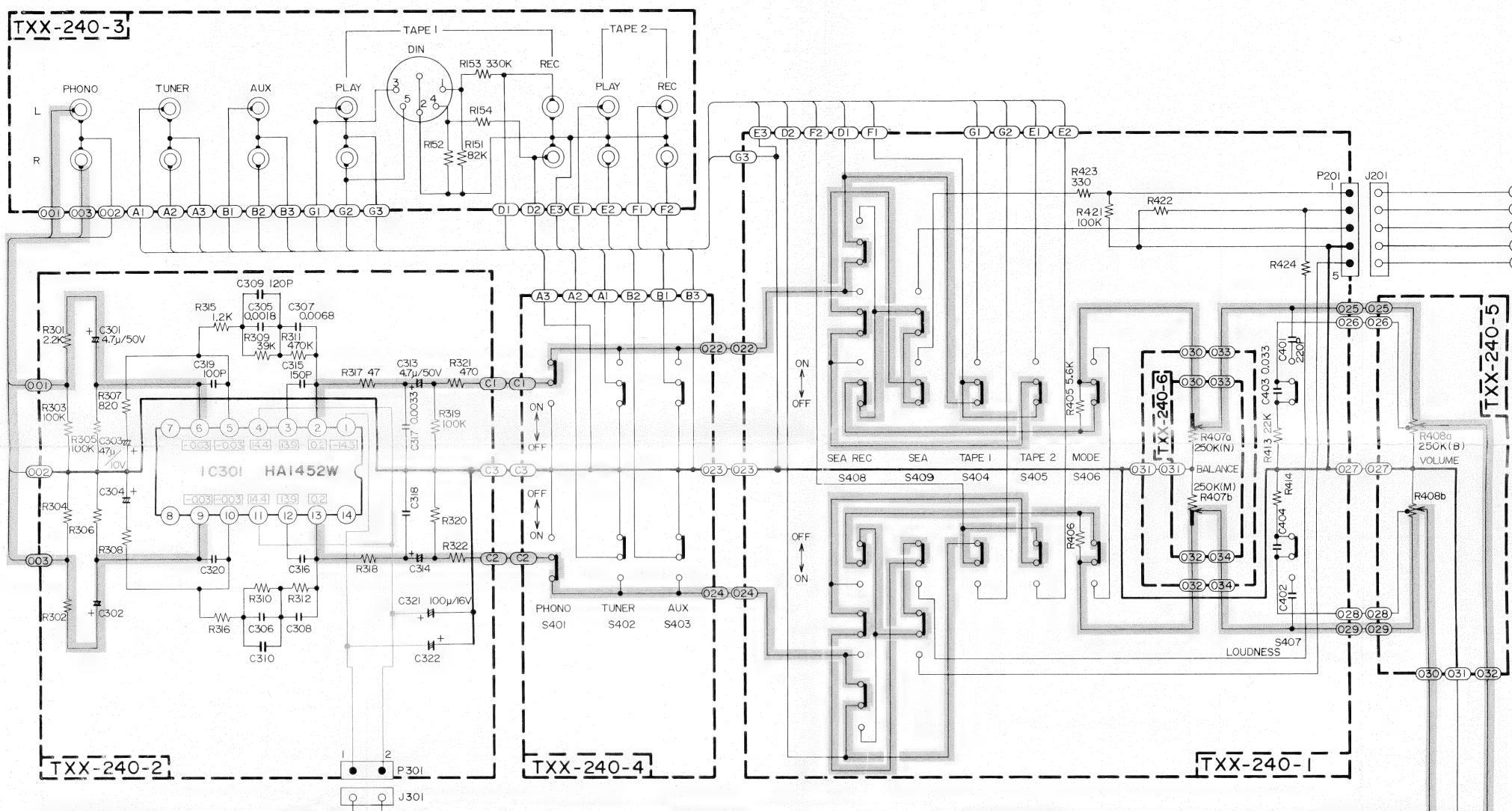
A

B

C

D

DIN SOCKET IS PROVIDED ON SETS FOR AREAS EXCEPT U.S.A. AND CANADA.



3

4

A

B

C

D

## Printed Circuit Board Ass'y | Locations

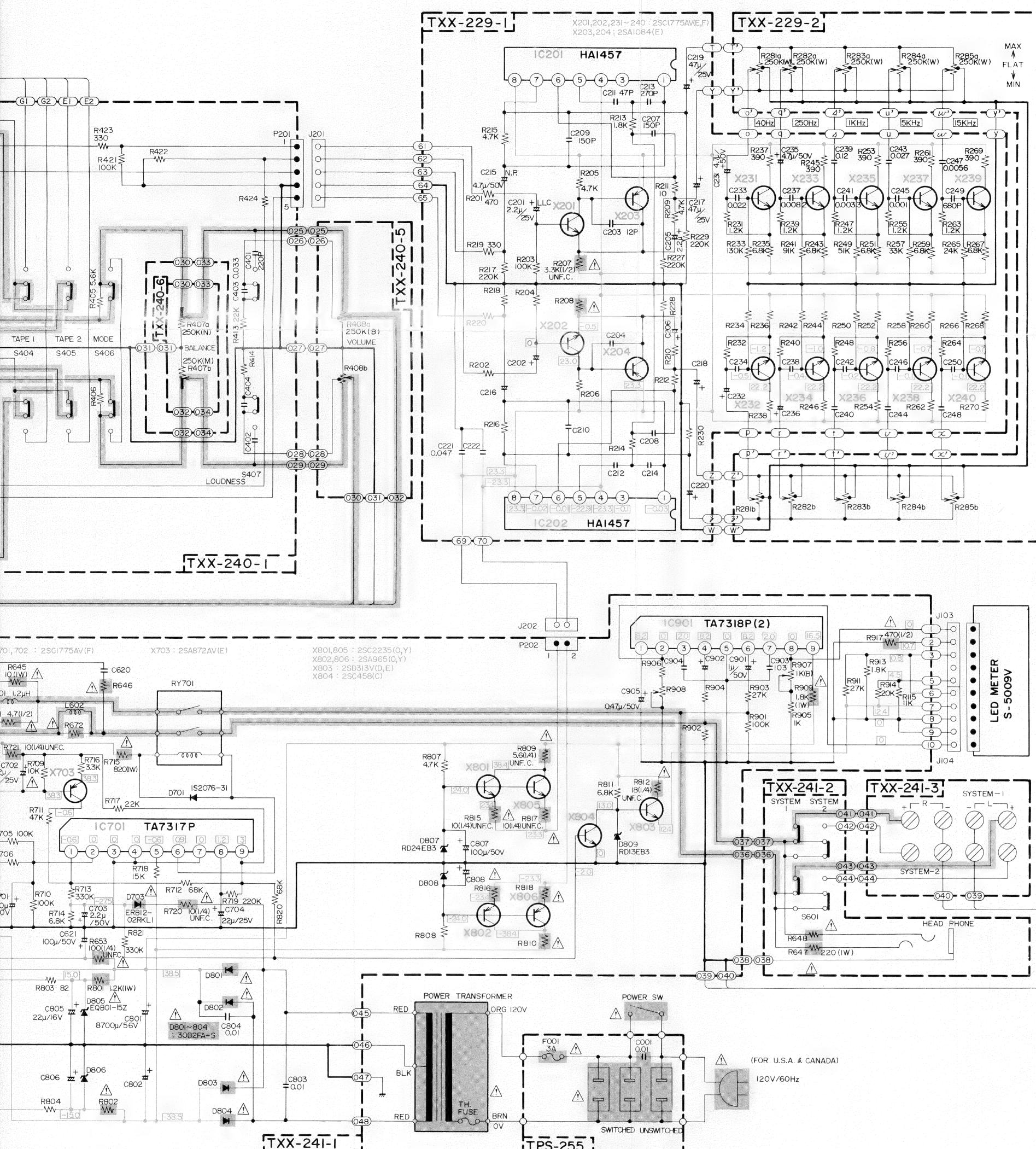
| P.C. Board Ass'y | Description  | Page |
|------------------|--|------|
| TXX-241A         | Power Amp., Volume Control & Other Function Split P.C. Board Ass'y | 5    |
| TXX-240          | Tone Controls & Other Select Switches Split P.C. Board Ass'y       | 8    |
| TPS-255B         | AC Fuse P.C. Board Ass'y   | 9    |
| TPS-277          | AC Fuse P.C. Board Ass'y   | 9    |
| TPS-234A         | AC Voltage Selector P.C. Board Ass'y                               | 9    |
| TXX-229B         | SEA (Sound Effect Amplifier) P.C. Board Ass'y                      | 10   |

### Notes:

- Notes:**

  1. Voltage values in  are positive.
  2. Voltage values in  are negative.
  3.  indicates positive B power supply.
  4.  indicates negative B power supply.
  5.  indicates signal path.
  6. When replacing the parts in the darkened area () and those marked with  , be sure to use the designated parts to ensure safety.
  7. Parts in red in
  8. This is the sta  
The design a  
notice.

C D E F



C D E F

e values in [ ] are positive.

e values in [ ] are negative.

indicates positive B power supply.

indicates negative B power supply.

indicates signal path.

replacing the parts in the darkened area ( [ ] ) and

marked with △, be sure to use the designated parts

for safety.

7. Parts in red indicate transistors or ICs.

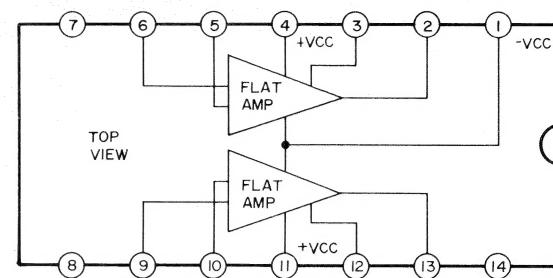
8. This is the standard circuit diagram.

The design and contents are subject to change without notice.

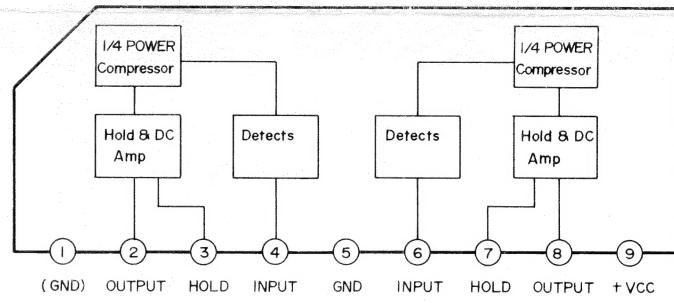


SEE BACK PAGE

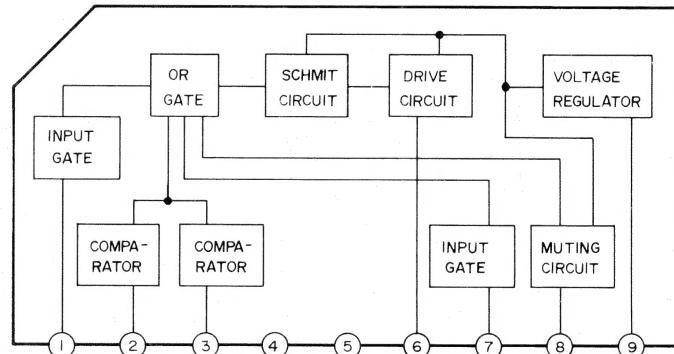
EQ. IC IC301 HAI452W



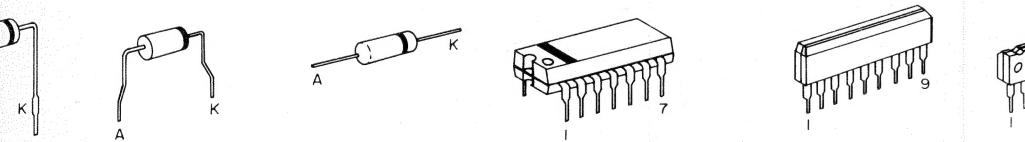
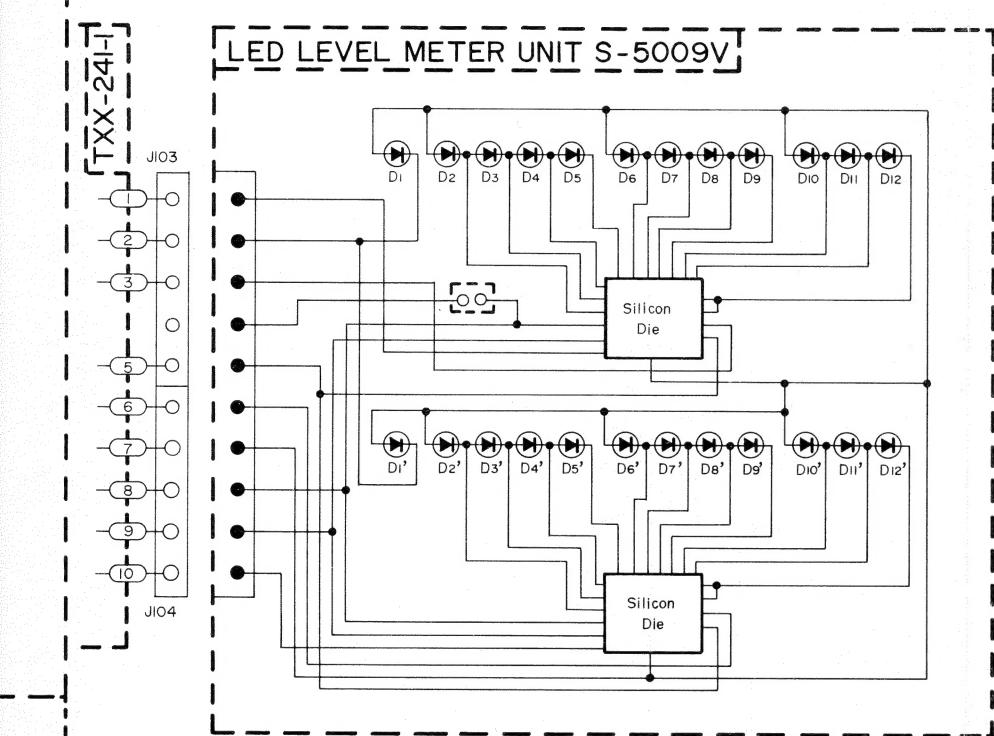
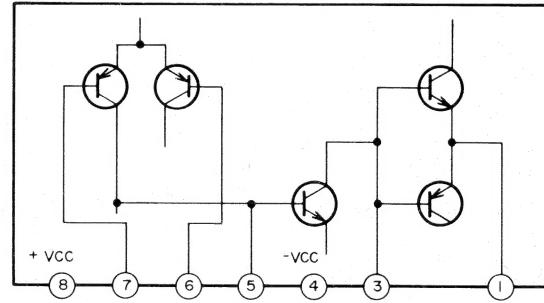
COMPRESSION IC IC901 TA7318P(2)



PROTECTOR IC IC701 TA7317P



SEA IC IC201, 202 HAI457



-S  
-804

ERBI2-02RKLI  
D703

IS2076-3I  
RD9, EB3  
EQ801-15Z  
RD13EB3  
RD24EB3

D601, 602, 701  
D603  
D805, 806  
D809  
D807, 808

HAI452W  
IC301

TA7317P  
IC701  
TA7318P (2)  
IC901

VC5022  
IC601, 602

HAI457  
IC201, 202

## 10. Accessories List

| Item No. | Part Number           | Description                                      | Q'ty |
|----------|-----------------------|--|------|
| 1        | E30580-830A           | Instruction Book (for U.K., E30580-830ABS)       | 1    |
| 2        | See below             | Warranty Card                                    | 1    |
| 3        | E41202-2              | Envelope for Instruction Book & Warranty Card    | 1    |
| 4        | BT20042               | "Does it Better" (for U.S.A. only)               | 1    |
| 5        | QMF51A2-1R6L or 3R15S | Fuses (Other Countries)                          | 1    |
| 6        | E64208-001            | Envelope for Fuses (for Other Countries)         | 1    |
| 7        | E67142-T1R6 or T3R15  | Fuse Label (for Other Countries)                 | 1    |
| 8        | E64216-002            | Caution Tag for Power Cord (for Other Countries) | 1    |

### Warranty Card

| U.S.A    | Canada   | U.K      | Europe | Australia |
|----------|----------|----------|--------|-----------|
| BT20032B | BT20025C | BT20013C | -      | BT20029B  |

## 11. Packing Materials and Part Numbers

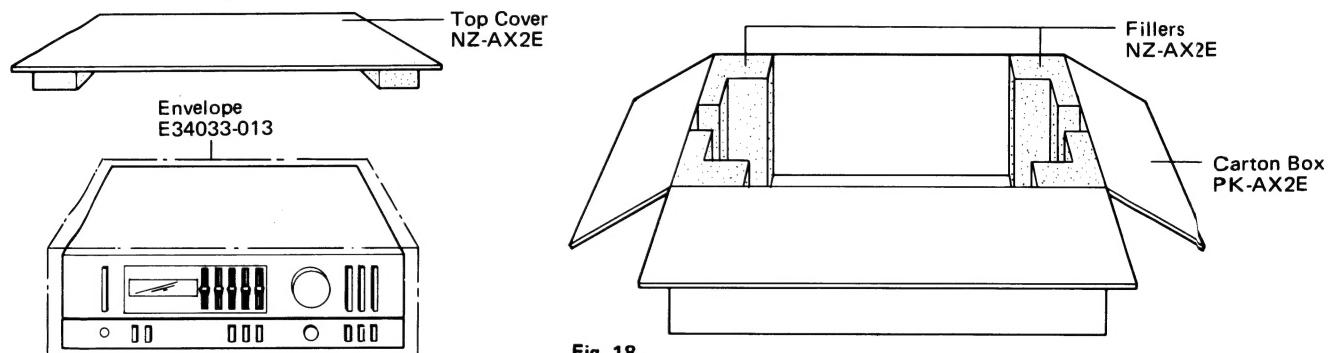


Fig. 18

## 12. Parts List with Specified Numbers for Designated Areas

| Page              | Item No. | Description   | U.S.A.  | Canada  | U.K.  | Europe  | Australia   | Other Countries   |
|-------------------|----------|---|---|---|---|---|---|---|
| 2, 3<br>2, 3<br>8 | S1       | Power Transformer<br>Power Switch   | E03077-55B<br>QSP110-301<br>TXX-240A                | E03077-55D<br>QSP110-301<br>TXX-240A                | E03077-55EBS<br>See Back Page<br>TXX-240B                   | E03077-55E<br>See Back Page<br>TXX-240B               | E03077-55E<br>See Back Page<br>TXX-240B               | E03077-55C<br>QSP2110-004<br>TX-240B  |
| 3<br>2, 3<br>9    |          | Equalizer &<br>Select Switch<br>P.C. Board Ass'y<br>Chassis Base<br>Rear Panel<br>AC Fuse &<br>Voltage<br>Selector P.C. Board<br>Ass'y<br>Power Cord<br>Strain Relief<br>Fuse (Primary) | E10498-001<br>E23474-001<br>TPS-255B                | E10498-001<br>E23474-001<br>TPS-255B                | E10498-002<br>E23474-002<br>See Back Page                   | E10498-002<br>E23474-002<br>See Back Page             | E10498-002<br>E23474-002<br>See Back Page             | E10498-001<br>E23474-003<br>TPS234A   |
| F001              |          | Fastener<br>Fuse Socket   | QMP1200-200<br>QHS3876-162<br>QMF61U1-3R0<br>(3.0A) | QMP1200-200<br>QHS3876-162<br>QMF61U1-3R0<br>(3.0A) | QMP9017-008BS<br>QHS3876-162BS<br>QMF51A2-1R6LBS<br>(T1.6A) | QMP3900-200<br>QHS3876-162<br>QMF51A2-1R6L<br>(T1.6A) | QMP2560-244<br>QHS3876-162<br>QMF51A2-1R6L<br>(T1.6A) | QMF7600-250<br>QHS3876-162<br>QMF51 A2-1R6L<br>(T1.6A)<br>or<br>QMF51 A2-3R15<br>(T3.15A)<br>—<br>QMF0301-003 |

### Power Specifications

Safety Parts

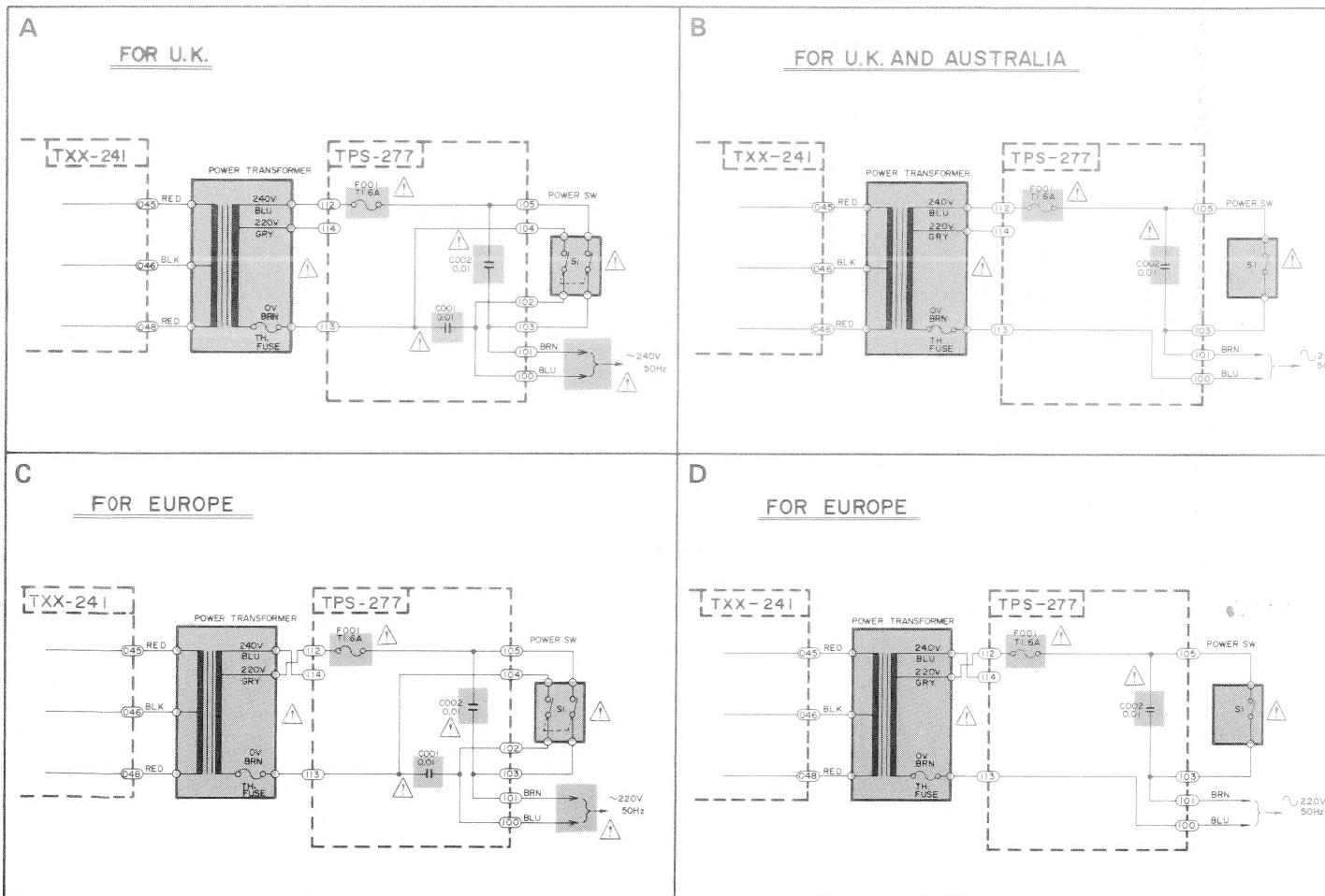
| Area             | Line Voltage & Frequency                   | Power Consumption |
|------------------|--|-------------------|
| U.S.A. & Canada  | AC 120 V, 60 Hz                            | 220 W, 290 VA     |
| Europe           | AC 220 V~, 50 Hz                           | 400 W             |
| U.K. & Australia | AC 240 V~, 50 Hz                           | 400 W             |
| Other Countries  | AC 110/120/220/240 V~ Selectable, 50/60 Hz | 400 W             |

**Warning! : Before servicing, check serial number at first.**

The numbers shown in table are pointed out the last five digits of the serial number located on the rear panel.  
For example, 08026 → □□□08026

| Description  | No. | U.K.                        |                             | Europe                  |                          | Australia                |
|--|-----|-----------------------------|-----------------------------|-------------------------|--------------------------|--------------------------|
|  |     | 00001–01010                 | over 01011                  | 00001–04035             | over 04036               | over 00001               |
| Power Switch △<br>AC Fuse P.C. Board Ass'y △<br>Power Supply Schematic<br>Diagram (Refer to the below) |     | QSP2110-004BS<br>TPS-277FBS | QSP1110-305BS<br>TPS-277JBS | QSP2110-004<br>TPS-277E | QSP1110-305<br>TPS-277 I | QSP1110-305<br>TPS-277 I |
|  |     | A                           | B                           | C                       | D                        | B                        |

**Power Supply Schematic Diagram**



**JVC**

VICTOR COMPANY OF JAPAN, LIMITED, TOKYO, JAPAN